

ABSTRACT OF THE DISCLOSURE

Semiconductor device inspection apparatus suitable for inspecting narrow-pitched semiconductor devices and an inspection method. The apparatus has a wafer stage, a base table, an X stage, a Y stage, an elevation unit mounted on the Y stage and elevates the wafer stage up and down, a rotary unit which turns the wafer stage, a vibration elimination table which reduces vibration of the base table, a probe card having plural probe needles which electrically contact plural electrodes when the wafer stage moves upward, and a probe card holder where the probe card is to be placed. The heights of needles of the probe card are detected by a laser displacement meter. Images of a wafer and the needles are sensed by a camera. Based on image information, positions of the wafer and probe card are computed and the X stage, Y stage and elevation unit are controlled.